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(54) Title: NUCLEIC ACID VACCINES FOR PREVENTION OF FLAVIVIRUS INFECTION

(57) Abstract

The invention encompasses nucleic acid molecules containing transcription units which encode the flavivirus M and E protein antigens. The flaviviruses include Japanese encephalitis virus, dengue, yellow fever virus and St. Louis encephalitis virus. The nucleic acids function to provide the M and E protein antigens when the nucleic acid resides in an appropriate host cell, especially when the host cell is the cell of a subject. The invention also encompasses a vaccine whose active agent is the nucleic acid. The invention further encompasses the cultured host cells when they contain within them nucleic acid molecules containing the transcription units. The invention in addition encompasses a method of immunizing a subject against flavivirus infection by administering to the subject an effective amount of a vaccine containing a nucleic acid molecule containing the transcription unit of the invention.